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动物分类学报

PARABERYTUS ŠTUSÁK, A NEW RECORD GENUS FROM CHINA, WITH DESCRIPTION OF A NEW SPECIES (HEMIPTERA, HETEROPTERA, BERYTIDAE, BERYTINI)

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Abstract In this paper, the genus *Paraberytus* Štusák, 1965, is recorded for the first time from China, and a new species *Paraberytus yunnanensis* sp. nov. is described. Digital photographs of the new species, scanning electron micrographs of selected structures, illustrations of opening of male genital capsule and paramere are provided. The type specimens are deposited in the Insect, Institute of Entomology, College of Life Sciences, Nankai University, Tianjin, China.
Key words Hemiptera, Heteroptera, Berytidae, *Paraberytus*, new species, China.

1 Introduction

The genus *Paraberytus* was established by Štusák in 1965, on the basis of type species *Paraberytus mirabilis* Štusák 1965 from Congo, at the same time he described another species *P. similis* Štusák from Congo. Štusák (1976) described *P. parvintum* from Congo and Tanzania, and provided a key to known species at that time. Štusák (1990) described a species, *P. baloghi* from Congo. Up to now, there are four species in this genus. In this paper, this genus is new record to China, and a new species is described from Yunnan, China. Digital photographs of the new species, scanning electron micrographs of selected structures, illustrations of opening of male genital capsule and paramere are provided. The type specimens are deposited in the Insect, Institute of Entomology, College of Life Sciences, Nankai University, Tianjin, China.

2 Material and Methods

All the examined specimens in this study are deposited in the Institute of Entomology, College of Life Sciences, Nankai University, Tianjin, China.

Digital photographs were acquired by using a Nikon SMZ1000 microscope equipped with a computer - controlled SPOT RT digital camera and related software. Scanning electron micrographs were acquired by using scanning electron microscope (= SEM, FEI Quanta 200) operated at 20 KV. The genitalia dissection followed the methods and techniques outlined by Ashlock (1957). Morphological terminology follows that of Henry (1997b), Štusák (1965, 1976, 1990), and terminology of thoracic scent efferent system follows Kment & Vilímová (2010).

Paraberytus Štusák, 1965 New record to China

Paraberytus Štusák, 1965. *Acta Entomol. Mus. Natl. Pragae*, 36: 515. Type species: *Paraberytus mirabilis* Štusák, 1965. Original designation.

Diagnosis. *Paraberytus* Štusák, 1965 shares with *Apoplymus* Fiber, 1859, *Berytoplymus* Štusák, 1989, and *Hubertiella* Kirkaldy, 1902, a distinct frontal process, flared ostiolar scent channel, a ventrally punctuate abdomen, an alternating pale and dark lateral abdominal margin, dark-brown streaks on the hemelytra, and similar woolly or tomentose pubescence. It is distinguished from *Apoplymus* in lacking dorsal abdominal punctures; from *Berytoplymus* in lacking tubercles at the base of tibiae and an extended ovipositor; from *Hubertiella* in having a robust, forwardly directed frontal process, and in having fine puncturation on clavus and corium, which are areolated in *Hubertiella*.

Paraberytus yunnanensis sp. nov. (Figs 1 - 10)

Diagnosis. *Paraberytus yunnanensis* sp. nov., can be distinguished from *P. mirabilis*, *P. similis* and *P. parvintum* by the short, prostrate scutellar spine (Fig. 2); from *P. baloghi* by the distinctly long frontal process (Fig. 1), which does not quite reach the level of anterior margin of anteclypeus in *P. baloghi*.

Description. Male. general coloration ochreous-brown, with ventral surfaces of head and thorax piceous.

Head (Figs 1, 7). Frons extended into a forward fingerlike process, anterior portion of which is downward-curving slightly, punctuate, peglike setae arising from puncture (Fig. 1); frons between bases

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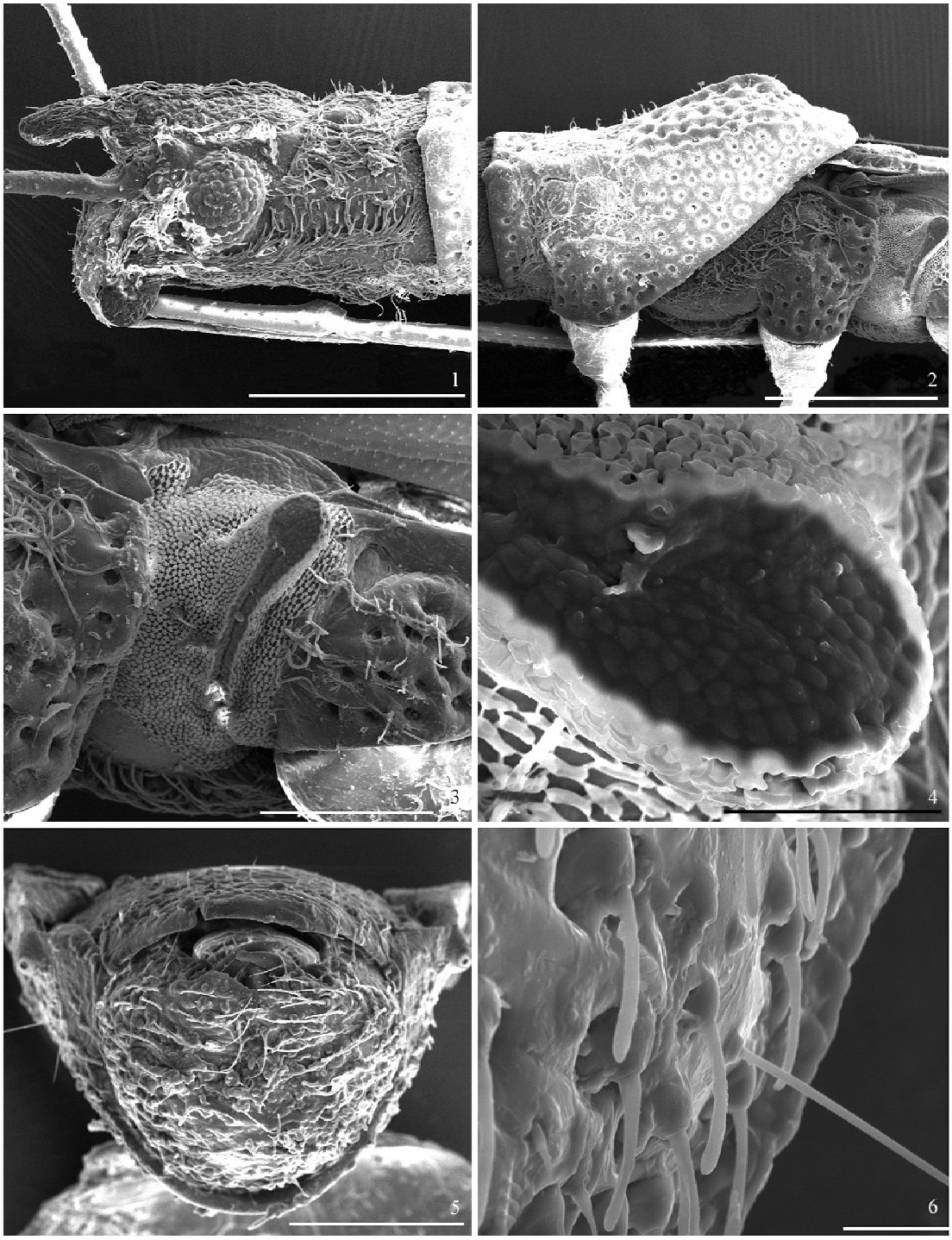


Figs 1 – 6. Scanning electron micrographs of *Paraberytus yunnanensis* sp. nov. 1. Head, lateral aspect. 2. Thorax, lateral aspect. 3. External scent efferent system. 4. Peritremal microsculpture of apex of peritremal surface. 5. Male genital capsule, caudal aspect. 6. Punctures with piglike setae and a trichobothria on abdominal segment Ⅶ. Scale bars: 1 – 2 = 500 μm, 3, 5 = 200 μm, 4 = 50 μm, 6 = 20 μm.

of antennae with a small cone-like tubercle; buccula oval, widened to enclose base of rostrum, but not extending beyond apex of clypeus; ochreous-brown dorsally, piceous ventrally from dorsal edge of eye including apex of clypeus; thick mats of sericeous yellowish-white pubescence covering most of maxillary plate and ventral surface of head except for glabrous rostral groove, and laterally extending around ventral margin of eye to base of head (Fig. 1), dorsally covering frontal process and extending from frontal process along middle or lateral of portion between eyes triseriately to suture of anterior lobe of head, bordering suture of posterior lobe of head and extending around ocelli (Fig. 7). Rostrum. Proportion of rostral segments: Ⅰ∶Ⅱ∶Ⅲ∶Ⅳ = 1.01∶1.14∶0.64∶1.00; ochreous-brown, except segment Ⅳ dark brown;

Figs 7 – 8. *Paraberytus yunnanensis* sp. nov. 7. Head, dorsal aspect. 8. Dorsal aspect. Scale bars = 0. 5 mm.

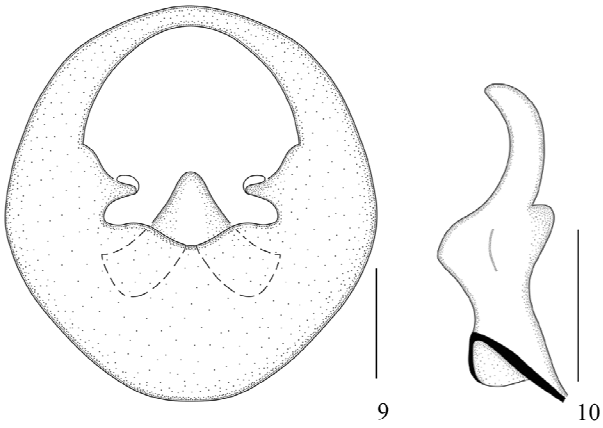
extending to middle of metacoxae. Antenna (Fig. 8): 1. 53 times as long as body, first antennal segement 0. 65 times as long as body and 0. 86 times as long as second and third segments together, third segment 1. 48 times as long as second, second 2. 42 times as long as fourth segment; segments Ⅰ – Ⅲ ochreous-brown, except clavate apices of segment Ⅰ dark; segment Ⅰ with sparse, fine, dark brown spots; segment Ⅳ fusiform, black, apical 1/5 and base lighter.

Pronotum (Figs 2, 8). Ochreous-brown; deeply and uniformly punctuate except for impunctate calli; sparse, yellowish-white pubescence above and anterior to proacetabula (Fig. 2); anterior angles of pronotum with small, rounded tubercles slightly (Figs 1 – 2, 7); humeral elevations low and rounded, median elevation highest (Fig. 2); posterior margin of the pronotum concaved (Fig. 8). Scutellum (Fig. 2): ochreous-brown, without pubescence, posterior corner produced as a short, stout, prostrate spine. Hemelytron (Fig. 8): ochreous-brown, weakly tinged and streaked with dark brown; extending beyond apex of abdomen; apices of hemelytra curved inwards and crossed each other, outer margin of membrane concaved. Abdomen: grooved segment Ⅱ piceous, segment Ⅲ – Ⅶ ochreous – brown, with pale brown area on lateral margin of each segment; punctuate ventrally, peglike setae arising from puncture (Fig. 6), impunctate dorsally; narrow bands of yellowish-white pubescence along rostral groove and lateral margins of segment Ⅱ; fusiform slightly, segment Ⅲ – Ⅴ fused; spiracle on the segment Ⅶ extended into a distinct process (Fig. 5); hypandrium extending to cover genital capsule. Thoracic ventral surface: piceous, with bands of yellowish-white pubescence bordering rostral groove and mats of pubescence covering lateral of mesothorax (Figs 2 – 3). External scent efferent system (Figs 3 – 4): evaporatorium limited to metapleuron; peritreme extending free from apical 3rd to level of hemelytra; peritremal surface apically covered by scale-like peritremal microsculpture (Fig. 4). Legs (Fig. 8): ochreous-brown; femora with sparse, fine, dark brown spots, clavate apices dark brown; tibiae with sparse, fine, dark brown spots, apical portion piceous; tarsi piceous; claws black.

Genitalia. Opening of male genital capsule and paramere as shown in Figs 5, 9 and 10. Apex of lateral projection of male genital capsule turning outward (Fig. 9).

Female. Similar to male in color and pubescence. Abdomen fusiform distinctly, abdominal segments Ⅲ – Ⅳ fused.

Measurements (mm). Male (n = 5). Length



Figs 9 – 10. *Paraberytus yunnanensis* sp. nov. 9. Opening of male genital capsule, punctures and pilosity omitted. 10. Paramere, pilosity omitted. Scale bars = 0. 1 mm.

5. 76 – 6. 32, width across hemelytra 0. 80 – 0. 85. Head: length 0. 80 – 0. 88, width 0. 50 – 0. 52. Frontal process: length 0. 20 – 0. 22. Rostrum: segment Ⅰ, length 0. 47 – 0. 48; Ⅱ 0. 50 – 0. 57; Ⅲ 0. 30 – 0. 31; Ⅳ 0. 46 – 0. 48. Antenna: segment Ⅰ, length 3. 88 – 4. 00; Ⅱ 1. 75 – 1. 93; Ⅲ 2. 67 – 2. 75; Ⅳ 0. 72 – 0. 80. Pronotum: length 0. 88 – 0. 95, maximum width 0. 58 – 0. 61. Scutellar spine: length 0. 08 – 0. 11. Femoral lengths: profemur 2. 60 – 2. 80; mesofemur 2. 88 – 3. 04; metafemur 4. 16 – 4. 56. Tibial lengths: protibia 2. 96 – 3. 16; mesotibia 3. 16 – 3. 36; metatibia 5. 20 – 5. 56.

Female (n = 6). Length 6. 24 – 6. 88, width across hemelytra 1. 05 – 1. 15. Head: length 0. 81 – 0. 93, width 0. 52 – 0. 56. Frontal process: length 0. 22 – 0. 27. Rostrum: segment Ⅰ, length 0. 50 – 0. 56; Ⅱ 0. 52 – 0. 57; Ⅲ 0. 33 – 0. 36; Ⅳ 0. 49 – 0. 53. Antenna: segment Ⅰ, length 3. 90 – 4. 03; Ⅱ 1. 78 – 1. 88; Ⅲ 2. 56 – 2. 82; Ⅳ 0. 60 – 0. 70. Pronotum: length 0. 90 – 0. 96, maximum width 0. 58 – 0. 68. Scutellar spine: length 0. 10 – 0. 14. Femoral lengths: profemur 2. 72 – 2. 88; mesofemur 3. 00 – 3. 12; metafemur 4. 40 – 4. 64. Tibial lengths: protibia 2. 96 – 3. 16; mesotibia 3. 12 – 3. 32; metatibia 5. 36 – 5. 92.

Holotype ♂, Ruili Rare Arboretum, Ruili (24. 01° N, 97. 85° E; alt. 1 160 m), Dehong, Yunnan, China, 28 July 2006, GAO Cui-Qing leg. Paratypes: 3 ♂♂, 2 ♀♀, same data as holotype; 5 ♂♂, 2 ♀♀, ibid., alt. 1 200 m, FAN Zhong-Hua leg.; 5 ♂♂, 4 ♀♀, ibid., alt. 1 160 m, GUO Hua leg.; 3 ♂♂, 2 ♀♀, ibid., alt. 1 200 m, ZHANG Xv leg.; 2 ♂♂, 3 ♀♀, ibid., ZHU Wei-Bing leg.; 4 ♀♀, ibid., LI Ming leg.; 1 ♂, 1 ♀, ibid., DONG Peng-Zhi leg.; 4 ♀♀, ibid., 29 July 2006; 1 ♀, ibid., SHI Xue-Qin leg.; 3 ♂♂, 6 ♀♀, ibid., ZHU Wei-Bing leg.; 1 ♀, ibid., alt. 1 250 m, GAO Cui-Qing leg.; 1 ♂, 2 ♀♀, ibid., alt. 1 200 m, ZHANG Xv leg.; 1 ♀, ibid., GUO Hua leg.; 1 ♀, ibid., FAN Zhong-Hua leg.; 1 ♂, 2 ♀♀, ibid., 1 Aug. 2006; 2 ♂♂, 1 ♀, ibid., GUO Hua leg.; 6 ♀♀, ibid., ZHANG Xv leg.; 1 ♂, 1 ♀, ibid., GAO Cui-Qing leg.; 1 ♀, ibid., SHI Xue-Qin leg.; 1 ♀, ibid., 31 July 2006, alt. 1 000 m, ZHANG Xv leg.; 1 ♂, 2 ♀♀, Dengga (23. 94° N, 97. 58° E), Nongdao, Ruili, Dehong, Yunnan, 1 Aug. 2006, DONG Peng-Zhi leg.; 1 ♀, Caiyanghe Nature Reserve (22. 60° N, 101. 11° E), Puer, Yunnan, 25 May 2000, alt. 1 300 m, BU Wen-Jun leg.; 1 ♀, Tianba (23. 69°N, 100. 97° E), Puer, Yunnan, 23 Oct. 2000, alt. 1 100 m, BU Wen-Jun leg.; 2 ♂♂, 2 ♀♀, Yingjiang (24. 62° – 24. 70° N, 97. 57° – 97. 59° E), Dehong, Yunnan, 15 May 2009. alt. 373 – 1 148 m, LI Min leg.

Distribution. China (Yunnan).

Etymology. Named after type locality.

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中国新纪录——拟跷蝽属及一新种记述（半翅目，异翅亚目，跷蝽科，跷蝽族）

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摘　要　记述跷蝽科中国1新纪录属——拟跷蝽属 *Paraberytus* Štusák，1965，同时描述1新种 *Paraberytus yunnanensis* sp. nov.。

云南拟跷蝽，新种 *Paraberytus yunnanensis* sp. nov.（图1～10）

本种与拟跷蝽属其它种主要区别如下：与 *P. mirabilis* Štusák，1965、*P. parvinotum* Štusák 1976、*P. similis* Štusák 1965 的区别在于小盾片末端突起短而平伏，而非向后斜上指向的长刺；与 *P. baloghi* Štusák，1990 的区别在于额部突起较长，远超过前唇基，而后者额部突起甚短，不达于前唇基。模式标本存放于南开大学生命科学学院昆虫研究所标本室。

正模 ♂，云南德宏瑞丽珍稀植物园，1 160 m，2006-06-28，高翠青采。

词源：新种种名以模式产地云南而定名。

关键词　半翅目，异翅亚目，拟跷蝽属，跷蝽科，新种，中国.
中图分类号　Q969.35

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